

Political Feasibility of Long-Term Policies

Presentation at the "*Student Forum Maastricht 2006: Focusing the Future - Sustainability and Intergenerational Justice*," 18-21 April 2006, Universiteit Maastricht, Maastricht, The Netherlands

Detlef Sprinz

PIK - Potsdam Institute for Climate Impact Research &
University of Potsdam
<http://www.sprinz.org>

1



A government might, for instance, want to discourage building in areas prone to hurricanes. So it warns citizens that no compensation will be given for houses in such areas should disaster strike. If people believe the warning, they will not build. But if they expect (as history suggests they should) that the government is likely to soften its stance and pay for hurricane damage after all, they will ignore the warning. Before the fact, the government wants to stop building; afterwards, it wants to compensate those who have suffered. Mr Kydland and Mr Prescott refer to such conundrums as "time consistency problems" (Economist 2004).



Overview

- Definition
- Select Examples
- Why LoPo Problems Arise
- Response Options
- Illustration: Long-Term Climate Policy
- Political Feasibility of Responses
- What We Should Know More About



Definition

- Considerable Uncertainty About
 - ▣ magnitude, causes, effects, potential for intervention
- Persistence of Adverse Effects (if unabated)
 - ▣ ≥ 1 generation (25 years)
- Usually Not Politically “Resolved” Within a Few Legislative Periods
- Intervention Is (Counterfactually) Possible
- Evaluation of Modal Performance



Select Cases

- (Many) Mandatory Pension Plan Programs
- Public Debt (?)
- Many Subsidy Programs
- Long-Term Climate Policy & Transition to Low Carbon Energy Future
- Two Demographic Transitions
- Corruption, etc.



Why LoPo Problems Arise

- Time-Consistency Challenge
 - Kydland & Prescott (1977)
 - optimal choices at one point in time may be at odds with optimal choices taken a future points in time (dynamic economy)
 - threat to renege on earlier promises
 - intertemporal moral hazard problem
 - rule-based decisions: limit discretion



Why LoPo Problems Arise

⊕ Intergenerational Redistribution

▣ Tabellini (1991)

▣ assumptions

- parents live 2 generations, children only 1
- parents & children receive initial endowments from government and are taxed for repayment
- parents can bequeath assets

▣ select conclusions

- coalition of parents and rich children vote in favor of repayment of debt (majority voting of two generations)
- intergenerational & intragenerational redistribution occur
- debt must be large enough (yet not too large) and widely distributed for not renegeing



Response Options

⊕ "Sugar Daddy" Solution (for sugar beets)

- ▣ third party bears the burden (EU)

⊕ Commitment to Rule-Based Decisions

- ▣ creation of institutions removed from day-to-day political pressures
- ▣ Bundesbank/ECB/Federal Reserve Board
 - monetary expansion rule for aggregate money supply
- ▣ Airbus "launch aid"
 - project-based part-ownership



Response Options

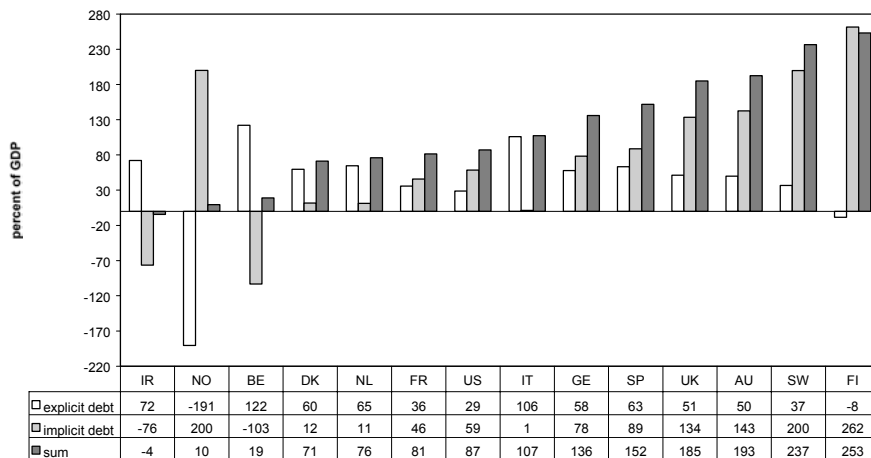
☛ Intergenerational Accounting

▣ intertemporal public liabilities

- discounted net tax revenues minus present public debt, integral over infinite time horizon
- explicit (legal) and implicit (e.g., demographically implied) liabilities
- policy interventions judged by Delphi method
- sensitive to base year selection (business cycle) & time-inconsistent policy changes



Figure 3: The Composition of Intertemporal Public Liabilities



Source: Gakhole & Raffelhüschen (1999), Raffelhüschen (2001)



Response Options

- ⊕ **Liability by Public Policy-Makers/Sanctions**
 - ⊞ asymmetry in comparison with private business
 - ⊞ civil and criminal law remedies
 - ⊞ mild version: US federal government sued by US cities over the impact of Overseas Private Investment Corporation & Export-Import Bank on CO₂ emissions (pending)
 - ⊞ insurance: California Earthquake Authority
 - ⊞ liability also in case of political gridlock (status quo persistence)?



Response Options

- ⊕ **Sunshine Policies (Monitoring)**
 - ⊞ corporate social responsibility activities
 - consumer journals
 - ⊞ environmental reports
 - ⊞ shareholder activism
- ⊕ **Sunset Policies**
 - ⊞ automatic expiry of subsidized entitlement programs



Response Options

- ⊕ Double Conditionality Systems
- ⊕ Market Exposure
 - ⊞ privatize publicly produced services
 - but not the public obligation to provide them and to monitor side-effects
 - ⊞ e.g., consumer waste management
- ⊕ → Carrots & Sticks

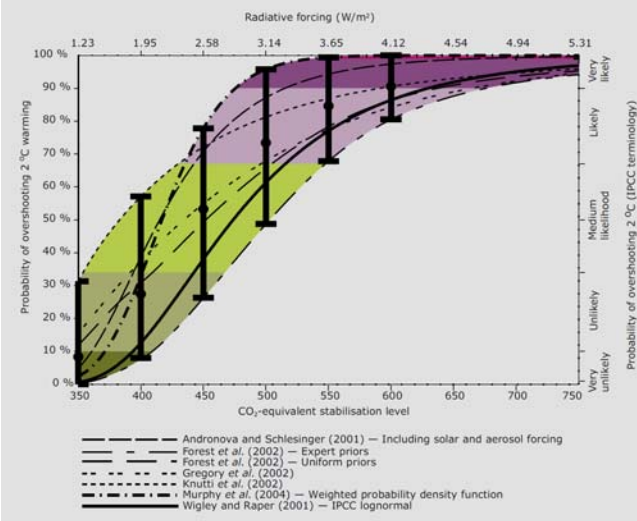


Illustration : Long-Term Climate Policy

- ⊕ Major Impacts Feared
 - ⊞ extreme model runs: 3-8 m sea level rise
- ⊕ Satisfies All Four Criteria of Long-Term Policy Problems
- ⊕ Challenge: Implement Long-Term Strategy
 - ⊞ Article 2 UNFCCC: prevent dangerous interference with climate system
- ⊕ EU:
 - ⊞ 2°C Target



Figure CO₂-equivalent concentration levels and their associated probability of overshooting the global 2 °C target by 2400



Source: Hare and Meinhausen, 2004.



Illustration : Long-Term Climate Policy

EU Efforts

- target: 550 ppm CO₂-equivalent
- -> 60-80% emission reductions until 2050 (base year: 1990)
- EEA study on low-carbon future
 - relatively high permit price (€ 65/t CO₂)
 - energy efficiency
 - fuel substitution
 - carbon capturing and storage



Illustration : Long-Term Climate Policy

■ design elements

- rule-based decisions, but no competent authority to enforce/no sanctions
 - specific goals for renewables shares of energy provision and electricity
- generational accounting & sunshine policies exist, but have only limited influence
- international liability system
 - could be built, but novel for lawyers
 - emission-weighted contributions to liability fund
 - adaptation & compensation



Illustration : Long-Term Climate Policy

- sunset policies on some pollutant activities “exist” (coal)
- double conditionality: New Zealand proposal at Kyoto (1997)
- market exposure
 - screening for exposure of firms starting (future of Ruhrgas)
 - US federal government sued... but in Europe?



Political Feasibility of Responses

- ✚ Do Elements Exist?
 - √ Sugar Daddy Solutions: Ailing industries often bailed out
 - √ Rule-Based Decisions: Institutionalized mostly in monetary policy, Airbus
 - √ intergenerational Accounting: IPL
 - ? Liability: Mostly in the Private Sector, rudimentary in the public sector



Political Feasibility of Responses

- ? Sunset Policies: Coal subsidies in Germany, subsidizing East Germany, agriculture in the EU
- ? Double Conditionality Systems: For game theorists, but evolution of cooperation and norms (Robert Axelrod)
- ? Market Exposure: Insolvency/Bankruptcy of some compulsory pension systems (e.g., Germany)



Political Feasibility of Responses

⊕ Reality: Simultaneous Challenges

▣ National

- Germany: pensions, health care, energy transition (?), public debt

▣ European

- climate policy (leadership)
- structural unemployment
- violating Maastricht (criteria) by design?



Political Feasibility of Responses

▣ Global

- pandemics
- stability of global financial system
- climate change and disasters

⊕ Credibility of the Response

▣ How to politically reward avoided tragedies?

▣ Linking short-term incentives to longer-term outcomes

- asset pricing and reward systems for real estate managers
- "asset" pricing for political managers?
- violating Maastricht by design? – and how to avoid it...



What We Should Know More About

- Magnitude of Long-Term Problems
 - comparative assessment
- More Complete Solutions Menu
 - which additional design options?
- Which Menu Options Are Politically Feasible Under Which Circumstances?
 - simulation of political decisions & other techniques



Additional Sources

- Paper available at
 - <http://www.sprinz.org> -> publications
- Comments & new ideas – especially solutions – appreciated
 - dsprinz@pik-potsdam.de
 - <http://www.sprinz.org>